

Fact Sheet



For Proposed Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Minor Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on November 22, 2010.

Permit Number: **R30-01100062-2010**

Application Received: **November 30, 2010**

Plant Identification Number: **03-54-01100062**

Permittee: **Earthgrains Baking Companies, Inc.**

Mailing Address: **1300 Adams Avenue, Huntington, WV 25704**

Permit Action Number: *MM01* Revised: *Proposed*

Physical Location: Huntington, Cabell County, West Virginia
UTM Coordinates: 371 km Easting • 4252 km Northing • Zone 17
Directions: Interstate 64 to Adams Avenue exit; between Adams and Washington Avenues, and between 13th Street West and 14th Street West.

Facility Description

Earthgrains operates a commercial bread baking facility. The principal pollutant emitted is VOC, emitted from the baking ovens. The baking ovens fire natural gas. This modification involves correcting the capacity of the 18 Tray Baker Perkins 970 Oven and correcting the heat input capacities for all three ovens at the site.

Emissions Summary

Emission Changes for 1S, 2S, and 3S from R13-2005B to R13-2005C

Regulated Pollutant	Maximum Potential Controlled Emissions	
	lb/hr	tpy
CO	-0.52	0
NO _x	-0.60	0

PM ₁₀	+0.07	+0.29
VOC	+4.3	0

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit over 100 tons per year of VOCs, therefore Earthgrains Baking Companies, Inc. is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR13	Construction permit
	45CSR21	VOC emission limits
	45CSR30	Operating permit requirement.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-2005C	May 13, 2011	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

Determinations and Justifications

This Title V minor modification incorporates the limitations, monitoring, recordkeeping, and reporting required by NSR permit R13-2005C.

During the Title V renewal process, Earthgrains reevaluated the capacity and the maximum heat input of each oven. Earthgrains updated the hourly heat input capacity for all three ovens (1S, 2S, and 3S), and updated the maximum baking capacity for the 18 Tray Baker Perkins 970 Oven (3S) from 3,000 lb/hr to 4,255 lb/hr.

None of the changes will require modification of the maximum annual production rates or natural gas usage rates. Earthgrains requested that the maximum hourly production rate for Unit ID No. 3S be increased, along with the maximum hourly emission rate from this unit. Also, the maximum natural gas combustion rates for each oven was adjusted.

R13-2005C: Condition 4.1.6. was not carried over into the Title V Permit. 45CSR§21-40.1.a. is a statement of applicability, rather than an applicable requirement. Likewise, 45CSR§21-40.2.a. is a definition, not an applicable requirement. 45CSR§21-40.4.e. was not included because the requirement to include the alternative emissions reduction plan into a permit in accordance with 45CSR13 or 45CSR30 has been met.

The applicant is subject to 45CSR21, Section 40 and submitted a review of reasonably available control technology (RACT) for the increase in emissions of VOCs associated with the NSR permit modification. The RACT evaluation identifies emission control options and determines the technical practicality, economic reasonableness and environmental impacts of reducing VOC emissions due to these changes.

The potential control technologies are: regenerative or recuperative thermal oxidizers; catalytic oxidizers; carbon adsorption systems; scrubbers; condensation systems; and biofiltration. Carbon adsorption systems, scrubbers, condensation systems, and biofiltration are not technically appropriate for a bakery oven application, and were eliminated from further consideration. Due to the nature of the bakery's activities, the facility cannot make formula or ingredient changes to reduce VOC emissions, which would affect the characteristics of the product. This type of change, therefore, was not considered in the evaluation.

The remaining control technologies include thermal oxidation (RTO) and catalytic oxidation. According to available literature, there is only a small difference between the design removal efficiency for a regenerative thermal oxidizer and a catalytic oxidizer. The efficiency is dependent upon the VOC concentration in the exhaust stream entering the oxidizer. Catalytic oxidation is the VOC control chosen by more than 90% of bakers in the US for VOC emissions from bakery ovens.

The cost evaluation was performed using the methodology contained in the USEPA guidance document, "OAQPS Control Cost Manual", projected emission calculations for the bagel oven, and vendor information for the control device. A summary of the cost evaluation for a catalytic oxidizer achieving at least 95% control efficiency is as follows:

Annualized Cost - \$279,070

Actual Projected VOC Emission Reduction - 25.5 tons/yr

Cost Effectiveness for Actual Projected VOC Emissions - \$10,961 per ton of VOC removed

The applicant has stated that this cost is prohibitive to the bun oven's continued operation and that the installation of a catalytic oxidizer on the bun oven for a slight reduction in emissions is not cost effective.

The NSR permit writer reviewed the submitted information and agrees with the applicant's conclusion that installation of the best available control option presented for the 3S bun oven to reduce VOC is cost prohibitive to the oven's continued operation. Therefore, WV DAQ concludes that the applicant meets the requirements of "Reasonably available control measures" (RACT) as defined in 45CSR§21-40.2.a.

Non-Applicability Determinations

No new non-applicable requirements were identified in this permit revision.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: N/A
Ending Date: N/A

All written comments should be addressed to the following individual and office:

Bobbie Scroggie
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, S.E.
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Bobbie Scroggie
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, S.E.
Charleston, WV 25304
Phone: 304/926-0499 ext. 1225 • Fax: 304/926-0478